An Unusual Salamander from the Ocala National Forest

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A FIELD party from Florida Southern College secured a single salamander of the genus Ambystoma on June 4, 1964, at Hughes Island, near the center of the Ocala National Forest. This specimen appeared to be recently transformed, and it measured 24.2 mm in snout-vent length and 54.9 mm in total length. The head measured 7.1 mm in length by 4.8 mm in width. On the dorsum the specimen showed a few faint round spots which were yellow while it was alive. It is now, after five years of preservation, uniformly black, with belly and legs not much paler than the dorsum. This salamander does not favorably correspond to any of the species of Ambystoma presently recognized as occurring in Florida, but it may represent a young spotted salamander, Ambystoma maculatum (Shaw).

Carr (1940) included the spotted salamander in the herpeto-fauna of Florida on the basis of a single specimen from Candler, Marion County, Florida, University of Michigan Museum of Zoology no. 46937. Bishop (1943) followed Carr by including peninsular Florida in the range of this species. Neill (1954), however, considered the Candler individual a variant of the tiger salamander, Ambystoma tigrinum (Green), and through lack of additional material subsequent authors (Anderson, in Riemer, 1967; Carr and Goin, 1955; Conant, 1958) accepted Neill's decision. Accordingly, Ambystoma maculatum has not been included in the recent treatments of the Florida herpetofauna.

We have examined both the Candler and the Hughes Island specimens. The over-all length of the latter individual compares favorably with the total length of recently transformed spotted salamanders from New York, which Bishop (1941) reported as 42-70 mm (mean 51). A series of larval A. maculatum from Maryland was raised in captivity by the authors and preserved at the time of transformation. Measurements of these individuals are similar to those of the Hughes Island specimen. The Candler salamander shows seven pairs of round yellow spots on the head and body and additional round spots on the tail. Tooth patterns of both specimens closely approach those of New York A. maculatum illustrated by Bishop (1941).

Hughes Island is a large hardwood hammock noted particularly for the size of its virgin loblolly bay, *Gordonia lesanthus*, which, along with sweetbay magnolia, *Magnolia virginiana*, red bay, *Persea borbonia*, and black gum, *Nyssa sylvatica*, makes up the overstory. This hammock has been protected from fire, and there is a thick layer of humus and duff with tangles of decaying logs and debris on the forest floor. Since vast stands of sand pine, *Pinus clausa*, on loose, well-drained soils, completely surround the hammock to form an ecological "island", the possibility of migrations of salamanders adapted to cool, moist conditions, into or away from the island, is now nonexistent.

In spite of numerous attempts to collect more specimens, we have failed to do so. Intensive sampling of a small permanent sinkhole pond at the edge of the island, as well as several isolated, shallow, spring-fed pools, has failed to reveal either eggs or larvae of Ambystoma. The appearance of introduced redear sunfish, Lepomis microlophus, which were not observed on our 1964 trip, may have eliminated the eggs and larvae of Ambystoma. Slimy salamanders, Plethodon glutinosus, newts, Notophthalmus viridescens, cricket frogs, Acris gryllus, southern toads, Bufo terrestris, leopard frogs, Rana pipiens, gopher frogs, Rana areolata, and greenhouse frogs, Eleutherodactylus ricordi, are the only other amphibians thus far encountered in this community.

Although we do not believe that Ambystoma maculatum should be restored to the list of the state's herpetofauna until additional specimens confirm this report, the above data strongly suggest that an interesting population of salamanders occurs in this section of Florida. It is hoped that new material will eventually make it possible to clarify the taxonomic status of this salamander.

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